

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1           1-30 (Canceled).

1           31. (Currently amended) A method for controlling rippling caused by  
2 optical proximity correction during an optical lithography process used in  
3 manufacturing an integrated circuit, comprising:  
4           selecting a first evaluation point for a given segment that is part of an edge  
5 in a layout of the integrated circuit;  
6           selecting a second evaluation point for the given segment;  
7           computing a first deviation from a target location for the given segment at  
8 the first evaluation point;  
9           computing a second deviation for the given segment at the second  
10 evaluation point; and  
11           ~~adjusting a bias controlling rippling~~ for the given segment, if necessary,  
12 based upon a measurement of rippling computed from multiple deviations at  
13 multiple evaluation points, including the first deviation at the first evaluation  
14 point and the second deviation at the second evaluation point, wherein controlling  
15 rippling involves breaking the given segments into multiple segments in order to  
16 control ripple.

1           32. (Original) The method of claim 31, wherein the second evaluation  
2 point is a supplemental evaluation point.

1           33. (Original) The method of claim 31, wherein both the first evaluation  
2 point and the second evaluation point are located on the given segment.

1           34. (Original) The method of claim 31, wherein the first evaluation point  
2 is located on the given segment and the second evaluation point is located on an  
3 adjacent segment.

1           35. (Original) The method of claim 31, further comprising adjusting the  
2 bias, if necessary, for each segment that is part of the layout of the integrated  
3 circuit.

1           36. (Original) The method of claim 31, further comprising:  
2 selecting a third evaluation point for the given segment; and  
3 computing a third deviation for the given segment at the third evaluation  
4 point;  
5 wherein adjusting the bias for the given segment involves considering the  
6 third deviation at the third evaluation point.

1           37. (Original) The method of claim 31, wherein computing the first  
2 deviation involves using a model-based technique for computing the first  
3 deviation.

1           38. (Currently amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a  
3 method for controlling rippling caused by optical proximity correction during an  
4 optical lithography process used in manufacturing an integrated circuit, the  
5 method comprising:

6           selecting a first evaluation point for a given segment that is part of an edge  
7   in a layout of the integrated circuit;  
8           selecting a second evaluation point for the given segment;  
9           computing a first deviation from a target location for the given segment at  
10   the first evaluation point;  
11          computing a second deviation for the given segment at the second  
12   evaluation point; and  
13          ~~adjusting a bias~~ controlling rippling for the given segment, if necessary,  
14   based upon a measurement of rippling computed from multiple deviations at  
15   multiple evaluation points, including the first deviation at the first evaluation  
16   point and the second deviation at the second evaluation point, wherein controlling  
17   rippling involves breaking the given segments into multiple segments in order to  
18   control ripple.

1           39. (Original) The computer-readable storage medium of claim 38,  
2   wherein the second evaluation point is a supplemental evaluation point.

1           40. (Original) The computer-readable storage medium of claim 38,  
2   wherein both the first evaluation point and the second evaluation point are located  
3   on the given segment.

1           41. (Original) The computer-readable storage medium of claim 38,  
2   wherein the first evaluation point is located on the given segment and the second  
3   evaluation point is located on an adjacent segment.

1           42. (Original) The computer-readable storage medium of claim 38,  
2   wherein the method further comprises adjusting the bias, if necessary, for each  
3   segment that is part of the layout of the integrated circuit.

1           43. (Original) The computer-readable storage medium of claim 38,  
2 wherein the method further comprises:  
3           selecting a third evaluation point for the given segment; and  
4           computing a third deviation for the given segment at the third evaluation  
5 point;  
6           wherein adjusting the bias for the given segment involves considering the  
7 third deviation at the third evaluation point.

1           44. (Original) The computer-readable storage medium of claim 38,  
2 wherein computing the first deviation involves using a model-based technique for  
3 computing the first deviation.

1           45. (Currently amended) An apparatus for controlling rippling caused by  
2 optical proximity correction during an optical lithography process used in  
3 manufacturing an integrated circuit, comprising:  
4           a selection mechanism that is configured to,  
5                       select a first evaluation point for a given segment that is  
6                       part of an edge in a layout of the integrated circuit, and to  
7                       select a second evaluation point for the given segment;  
8           a deviation computing mechanism that is configured to,  
9                       compute a first deviation from a target location for the  
10                      given segment at the first evaluation point, and to  
11                      compute a second deviation for the given segment at the  
12                      second evaluation point; and  
13           a ~~bias adjustment~~ ripple controlling mechanism that is configured to adjust  
14 a ~~bias control~~ ripple for the given segment, if necessary, based upon a  
15 measurement of rippling computed from multiple deviations at multiple  
16 evaluation points, including the first deviation at the first evaluation point and the

17 | second deviation at the second evaluation point, wherein controlling rippling  
18 | involves breaking the given segments into multiple segments in order to control  
19 | ripple.

1           46. (Original) The apparatus of claim 45, wherein the second evaluation  
2 point is a supplemental evaluation point.

1           47. (Original) The apparatus of claim 45, wherein both the first evaluation  
2 point and the second evaluation point are located on the given segment.

1           48. (Original) The apparatus of claim 45, wherein the first evaluation point  
2 is located on the given segment and the second evaluation point is located on an  
3 adjacent segment.

1           49. (Original) The apparatus of claim 45, wherein the bias adjustment  
2 mechanism is configured to adjust the bias, if necessary, for each segment that is  
3 part of the layout of the integrated circuit.

1           50. (Original) The apparatus of claim 45,  
2 wherein the selection mechanism is additionally configured to select a  
3 third evaluation point for the given segment; and  
4 wherein the deviation computing mechanism is additionally configured to  
5 compute a third deviation for the given segment at the third evaluation point;  
6 wherein the bias adjustment mechanism is configured to consider the third  
7 deviation at the third evaluation point in adjusting the bias for the given segment  
8 involves.

1           51. (Original) The apparatus of claim 45, wherein the deviation computing  
2 mechanism is configured to compute use a model-based technique in computing  
3 the first deviation.

1           52. (Currently amended) A mask to be used in an optical lithography  
2 process for manufacturing an integrated circuit, wherein the mask is created  
3 through a process that controls rippling caused by optical proximity correction, the  
4 process comprising:  
5           selecting a first evaluation point for a given segment that is part of an edge  
6 in a layout of the integrated circuit;  
7           selecting a second evaluation point for the given segment;  
8           computing a first deviation from a target location for the given segment at  
9 the first evaluation point;  
10          computing a second deviation for the given segment at the second  
11 evaluation point; and  
12          ~~adjusting a bias~~ controlling rippling for the given segment, if necessary,  
13 based upon a measurement of rippling computed from multiple deviations at  
14 multiple evaluation points, including the first deviation at the first evaluation  
15 point and the second deviation at the second evaluation point, wherein controlling  
16 rippling involves breaking the given segments into multiple segments in order to  
17 control ripple.

1           53. (Currently amended) An integrated circuit created through a process  
2 that controls rippling caused by optical proximity correction during an optical  
3 lithography process used in manufacturing the integrated circuit, the process  
4 comprising:  
5           selecting a first evaluation point for a given segment that is part of an edge  
6 in a layout of the integrated circuit;

7           selecting a second evaluation point for the given segment;  
8           computing a first deviation from a target location for the given segment at  
9   the first evaluation point;  
10          computing a second deviation for the given segment at the second  
11   evaluation point; and  
12          ~~adjusting a bias~~controlling rippling for the given segment, if necessary,  
13   based upon a measurement of rippling computed from multiple deviations at  
14   multiple evaluation points, including the first deviation at the first evaluation  
15   point and the second deviation at the second evaluation point, wherein controlling  
16   rippling involves breaking the given segments into multiple segments in order to  
17   control ripple.

1           54. (Currently amended) A means for controlling rippling caused by  
2   optical proximity correction during an optical lithography process used in  
3   manufacturing an integrated circuit, comprising:  
4          a selection means for,  
5                  selecting a first evaluation point for a given segment that is  
6                  part of an edge in a layout of the integrated circuit, and for  
7                  selecting a second evaluation point for the given segment;  
8          a deviation computing means for,  
9                  computing a first deviation from a target location for the  
10          given segment at the first evaluation point, and for  
11          computing a second deviation for the given segment at the  
12          second evaluation point; and  
13          ~~a bias adjustment~~ripple controlling means for ~~adjusting a bias~~controlling  
14   ripple for the given segment, if necessary, based upon a measurement of rippling  
15   computed from multiple deviations at multiple evaluation points, including the  
16   first deviation at the first evaluation point and the second deviation at the second

- 17 | evaluation point, wherein controlling rippling involves breaking the given  
18 | segments into multiple segments in order to control ripple.